

REMARKS

In view of the foregoing amendments and remarks, applicants consider that the rejections of record have been obviated and respectfully solicit passage of the application to issue. Claims 1-16 are pending in this application.

The examiner originally requested a substitute specification in the office action dated June 5, 2002. In response applicants provided a copy of the specification which apparently included claims 1-20, originally filed in the PCT application. However, the present United States national stage application originally contained claims 1-16 as a result of amendments made during the international prosecution (see IPEA and English translation thereof filed with present applicant -- "AMENDED SHEETS"). Applicants sincerely regret any confusion that this may have caused. A substitute specification has been submitted herewith as originally filed, containing 17 pages. However, it appears that a mistake occurred in numbering the pages of the original specification as the sixteenth page of the original specification appears blank. Thus, the substitute specification contains 16 pages of substance and one blank page. Again, applicants regret any confusion that this has caused. The substitute specification submitted concurrently with this correspondence is a copy of the original specification submitted on March 16, 2001, and therefore does not contain new matter.

The examiner has required an election of species to be selected from articles, molding compositions, odorant articles of pellets and semi-finished articles. In response applicants wish to provisionally elect with traverse, the odorant polymer or

odorant plastic of claim 8.

The examiner argues that the claims are directed to more than one species that do not form a single inventive concept under PCT Rule 13.1. The examiner further argues that the species lack the same or corresponding special technical features because the moldings, odorant pellets and semi-finished articles are not novel in light of GB 219471. Applicants have previously provided remarks related to this reference in the response dated September 5, 2002. However, applicants respectfully request consideration of the additional remarks, outlined below, with respect to this reference.

The examiner argues that the moldings, odorant pellets and semi-finished articles are not novel compositions. However, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. Of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

In this instance the examiner has not established that the reference cited teaches each and every element of the instant invention. Specifically, claim 1 of the instant invention requires that the first polymer material is allowed to swell with the deodorant. Specifically, the instant disclosure describes this as "the absorption of the odorant into the polymer matrix or, respectively, the polymer network of the first polymer, which is used as a carrier." (Page 2, 22-25) The disclosure goes on to distinguish the invention over the prior art that contains "merely pores charged with odorant, without any loading of the polymer skeleton." According to the present

invention, specific polymers are to be selected as carrier materials for the odorant, which polymers are characterized by the Tg as specified in claim 1. These polymers differ from the polymers used according to Kubanek in that they are non-porous, crosslinked polymer with elastic properties and have a Tg of  $\leq 0^{\circ}$  C and thus do not contain pores. Thus, polymers which contain the same monomers do not necessarily have the same Tg.

In contrast, the Kubanek reference requires "powdery, porous carrier material," as described in claims 1-3 of the Kubanek reference. The disclosure of the Kubanek reference specifically requires 0.1 to 800 m<sup>2</sup>/g of powdery porous carrier material. (Page 1, lines 95-96). Indeed, the disclosure states, "Due to the large specific surface of the mentioned carrier types of scenting materials and their porous structure, they as active filler agents in plastics and can easily be colored with colors similar to those used for other plastics." (Page 1, lines 124-129).

Accordingly, the odorant of the instant invention is not adsorbed into a porous material as in the Kubanek process, but the odorant of the instant invention is absorbed from a microscopically small network. Therefore, the Kubanek process does not anticipate the instant invention as it does not contain each and every element of the instant invention. Specifically, the Kubanek reference does not disclose a carrier material that is non-porous with the specific Tg as claimed and described in the instant invention.

Furthermore, applicants respectfully assert that the instant invention complies

with the standards of unity of invention. As discussed above, the Kubanek process does not anticipate that of the instant invention. The special technical feature of the instant invention relates to the odorant polymer or plastics of claim 1. This feature is common to the odorant polymers or plastics of claim 8, the molding compositions of claim 11 and the articles of claim 13. Furthermore, claims 9 and 14 require the technical feature as they are subclaims to claims 8 and 13, respectively. Therefore, the requirement for unity of invention has been satisfied as the special technical feature provided by the instant invention(s) defines a contribution in which each of the inventions makes over the prior art.

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Respectfully submitted,  
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DERLIK et al., Serial No. 09/762,396

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**  
**IN THE SPECIFICATION**

Please enter the attached replacement specification (pages 1-17).

**COPY OF ALL CLAIMS**

1. A process for preparing odorant polymers or plastics, in which comminuted or fine-particle first polymer material is mixed with a desired odorant, allowed to swell, and, after being allowed to swell with the odorant, is mixed with a second polymer material, where the first polymer material differs from the second polymer material and is selected from particulate cross-linked plastics or from thermoplastic elastomers which have rubbery properties, with a glass transition temperature  $T_g$  of  $\leq 0^\circ\text{C}$ , which is below the glass transition temperature of the second polymer material.
2. The process as claimed in claim 1, wherein the odorant used comprises an odorant oil.
3. A process as claimed in claim 1, wherein the odorant used comprises pheromones and/or ecomones.
4. A process as claimed in claim 1, wherein the first polymer material is mixed and allowed to swell with the odorant in a closed container.
5. A process as claimed in claim 1, wherein the first polymer material in the form of a powder is mixed with the odorant, allowed to swell, and then further processed with the second polymer material in ground, powder or pellet form under high pressure and at about room temperature, and with heating to a temperature which is below the glass transition temperature of the second polymer material, or with heating to a temperature which is above the glass transition temperature

- either of the first polymer material or of the second polymer material.
6. A process as claimed in claim 1, wherein the first polymer material used comprises thermoplastics, thermoplastic elastomers, graft rubber, polymers of renewable raw materials, polymers or polymer mixtures of starch.
  7. A process as claimed in claim 6, wherein the second polymer material is selected from the group consisting of polylactic acid, polyurethanes, polyamides, polyesters, polyesteramides, and polybutylene terephthalates, and further consisting of polymers, copolymers, block copolymers, triblock copolymers and graft copolymers of monomers selected from the group consisting of styrene, butadiene, acrylonitrile, (meth)acrylate, and acrylic esters, and further consisting of mixtures of said materials with polycarbonates.
  8. An odorant polymer or an odorant plastic obtained by the process as claimed in claim 1.
  9. An odorant polymer or odorant plastic as claimed in claim 8 in pellet form.
  10. The process of applying the odorant polymer or plastic of claim 8 to an article for the defense against animals.
  11. A molding composition which comprises an odorant polymer or odorant plastic as claimed in claim 8.
  12. The process of applying the composition of claim 11 to an article for altering and/or improving the odor properties of the articles.
  13. An article which comprises an odorant polymer or an odorant plastic as claimed

in claim 8.

14. An article as claimed in claim 13 in the form of a plastic molding or a semifinished product.
15. The process of utilizing the article of claim 13 for improving room air quality.
16. The process of utilizing the article of claim 13 for defense against animal pests.